

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056473

Luminaire Tested: S125R3DR-S850D840-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056473
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S850D840-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

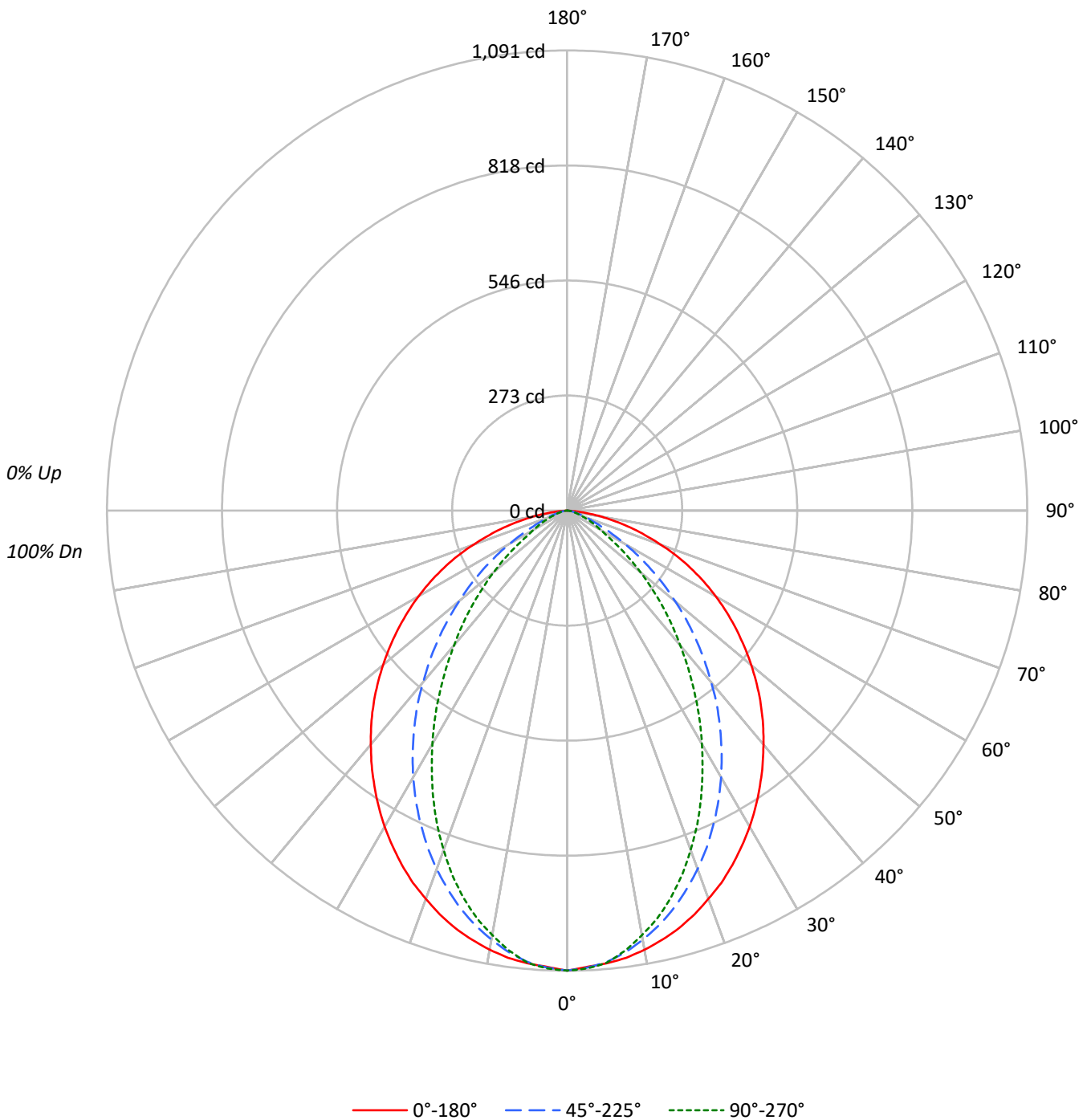
Lumens per Lamp: N/A
Luminaire Lumens: 1971.3 lumens
Efficiency: N/A
Efficacy: 74.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20										
RC	80									70									50									30									10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0														
RCR																																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100						100														
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88						88														
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77						77														
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67						67														
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59						59														
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52						52														
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47						47														
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42						42														
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38						38														
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35						35														
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32						32														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7711	7711	7711
5°	7646	7625	7639
10°	7590	7416	7336
15°	7502	7147	6955
20°	7370	6807	6443
25°	7232	6404	5860
30°	7065	5960	5218
35°	6876	5456	4540
40°	6682	4902	3840
45°	6491	4321	3180
50°	6264	3677	2499
55°	6024	2988	1817
60°	5754	2227	1299
65°	5406	1470	1014
70°	4884	1023	709
75°	4247	661	552
80°	3330	493	452
85°	1720	406	324

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6491 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.6	5.2
10°-20°	276.2	14.0
20°-30°	381.9	19.4
30°-40°	404.6	20.5
40°-50°	353.2	17.9
50°-60°	251.2	12.7
60°-70°	139.7	7.1
70°-80°	53.7	2.7
80°-90°	9.3	0.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	759.7	38.5
0°-40°	1164.3	59.1
0°-60°	1768.6	89.7
0°-90°	1971.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1971.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1091	1091	1091	1091	1091	
5°	1078	1086	1074	1072	1076	102
15°	1025	1016	976	955	950	289
25°	927	896	821	770	751	427
35°	797	742	632	555	526	498
45°	649	572	432	345	318	501
55°	489	392	242	168	147	437
65°	323	212	88	65	61	319
75°	156	61	24	20	20	165
85°	21	6	5	4	4	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1090.7	1090.7	1090.7	1090.7	1090.7
2.5°	1082.6	1093.7	1084.6	1085.6	1086.6
5°	1077.5	1085.6	1074.5	1071.5	1076.5
7.5°	1069.4	1075.5	1056.3	1049.3	1052.3
10°	1057.3	1059.3	1033.1	1023.0	1022.0
12.5°	1042.2	1039.2	1006.8	990.7	989.7
15°	1025.0	1015.9	976.5	955.3	950.3
17.5°	1003.8	989.7	941.2	913.9	905.8
20°	979.6	960.4	904.8	869.5	856.4
22.5°	955.3	929.1	864.4	820.0	805.9
25°	927.1	895.8	821.0	770.5	751.3
27.5°	896.8	859.4	776.6	718.0	694.8
30°	865.5	822.0	730.1	664.5	639.2
32.5°	832.1	782.6	681.7	610.0	583.7
35°	796.8	742.3	632.2	555.4	526.1
37.5°	761.4	700.8	583.7	501.9	471.6
40°	724.1	658.4	531.2	447.4	416.1
42.5°	687.7	615.0	481.7	395.9	367.6
45°	649.3	571.6	432.2	345.4	318.1
47.5°	610.0	526.1	382.7	297.9	270.6
50°	569.6	481.7	334.3	251.5	227.2
52.5°	529.2	437.3	288.8	207.0	185.8
55°	488.8	391.8	242.4	167.6	147.4
57.5°	448.4	347.4	198.9	131.3	113.1
60°	407.0	301.9	157.5	96.9	91.9
62.5°	365.6	257.5	122.2	79.8	75.7
65°	323.2	212.1	87.9	64.6	60.6
67.5°	280.7	170.7	63.6	49.5	46.5
70°	236.3	130.3	49.5	37.4	34.3
72.5°	193.9	93.9	35.3	27.3	26.3
75°	155.5	60.6	24.2	20.2	20.2
77.5°	117.1	36.4	17.2	15.1	15.1
80°	81.8	21.2	12.1	11.1	11.1
82.5°	49.5	11.1	8.1	7.1	7.1
85°	21.2	6.1	5.0	4.0	4.0
87.5°	4.0	2.0	2.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	18.26	19.70	18.62	20.02	20.33	10.90	12.34	11.26	12.65	12.97
	3H	19.82	21.10	20.20	21.43	21.80	11.46	12.75	11.84	13.08	13.44
	4H	20.34	21.54	20.74	21.89	22.27	11.58	12.79	11.99	13.14	13.52
	6H	20.68	21.78	21.09	22.15	22.54	11.65	12.76	12.06	13.12	13.52
	8H	20.76	21.81	21.19	22.20	22.60	11.65	12.71	12.08	13.10	13.50
	12H	20.78	21.79	21.21	22.17	22.60	11.65	12.65	12.08	13.03	13.46
4H	2H	18.15	19.36	18.56	19.71	20.09	11.46	12.66	11.86	13.01	13.39
	3H	19.82	20.81	20.23	21.21	21.61	12.14	13.12	12.55	13.52	13.93
	4H	20.37	21.25	20.80	21.67	22.11	12.29	13.18	12.73	13.59	14.03
	6H	20.76	21.53	21.22	21.97	22.43	12.40	13.17	12.86	13.61	14.07
	8H	20.87	21.58	21.33	22.03	22.50	12.42	13.13	12.88	13.57	14.04
	12H	20.92	21.55	21.40	22.03	22.50	12.42	13.05	12.90	13.53	14.00
8H	4H	20.27	20.99	20.74	21.43	21.90	12.56	13.27	13.03	13.72	14.19
	6H	20.66	21.25	21.16	21.74	22.22	12.69	13.28	13.19	13.77	14.25
	8H	20.77	21.29	21.29	21.81	22.30	12.72	13.25	13.24	13.76	14.25
	12H	20.83	21.29	21.34	21.79	22.36	12.74	13.21	13.26	13.70	14.27
12H	4H	20.24	20.87	20.72	21.35	21.82	12.58	13.21	13.06	13.69	14.16
	6H	20.61	21.13	21.13	21.65	22.14	12.71	13.23	13.22	13.74	14.23
	8H	20.74	21.20	21.25	21.69	22.26	12.77	13.23	13.28	13.72	14.29